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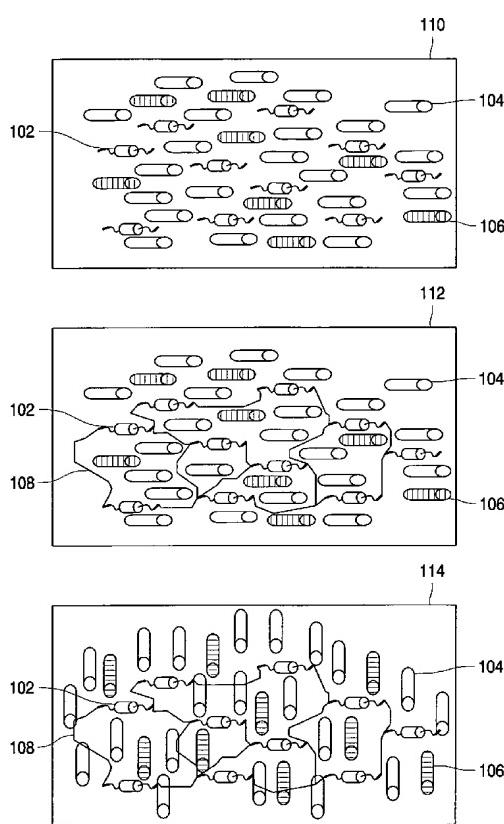
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(54) Title: OPTICAL RECORDING MEDIUM COMPRISING MOLECULES WITH HYDROGEN BONDS



(57) Abstract: The invention relates to an optical recording medium comprising at least one liquid crystalline (LC) layer including an anisotropic aligned LC polymer network, low molecular weight molecules, at least part of it being LC and orientable and at least part of it having functional groups for effecting hydrogen bonding with each other, and optionally a dye, and to a method for manufacturing said optical recording medium comprising the steps: a. applying onto a substrate at least one LC layer comprising LC monomers, low molecular weight molecules at least part being LC and orientable and at least part having functional groups for effecting hydrogen bonding with each other, and optionally a dye; b. heating the mixture to above a phase transition temperature; c) orienting the LC monomers into one direction; and d) converting the oriented LC monomers to a polymeric network. Further a method for writing information in an area of the optical recording medium has been claimed wherein at least one area in at least one of the LC layers is heated to above a phase transition temperature, and provided with optically readable information by: a. orienting in said area the LC molecules and optionally the dye to a direction that is different from the direction of the orientation of the polymeric network; b. cooling said area of the LC layer to below said phase transition temperature to freeze the direction of the oriented LC molecules and optionally the dye; and c) optionally repeating steps a. and b.

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